The nucleotide coding sequence (SEQ ID NO:1) and amino acid sequence (SEQ ID NO:2) of boying lysozyme

FIG. 1

atg aag gct ctc gtt att ctg ggg ttt ctc ttc ctt tct gtc gct gtc caa ggc aag gtc ttt gag aga tgt gag ctt gcc aga act ctg OGT V F E P C L A R T L aag aaa ctt gga ctg gac ggc tat aag gga gtc agc ctg gca aac REPORT OF THE POST tgg ttg tgt ttg acc aaa tgg gaa agc agt tat aac aca aaa gct W L C L T K W E S S Y N T K A aca aac tac aat cct agc agt gaa agc act gat tat ggg ata ttt cag atc aac agc aaa tgg tgg tgt aat gat ggc aaa acc cct aat $\mathbb{Q} = \{ 1, \dots, M \in \mathbb{N} \mid || M \in \mathbb{N} \mid || M \in \mathbb{N} \mid || B \in \mathbb{Q} \mid || P \in \mathbb{N} \mid || P \in \mathbb{N} \}$ gca gtt gac ggc tgt cat gta tcc tgc agc gaa tta atg gaa aat $\mathbb{R} = \mathbb{R} = \mathbb{R} = \mathbb{R} = \mathbb{R} = \mathbb{R} = \mathbb{R}$ gac atc gct aaa gct gta gcg tgt gca aag cat att gtc agt gag caa ggc att aca gcc tgg gtg gca tgg aaa agt cat tgt cga gac The Market State of the State o A W E S H cat gac gtc agc agt tac gtt gag ggt tgc acc ctg taa H D V S S Y V E G C T L +

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FIG. 2 (sheet 1 of 4)

Nucleotide sequence of the plasmid p1044-BoLys

(extends from nucleotides 5767 – 6211 of the viral vector; the sequence encoding bovine lysozyme, including the stop codon, is inserted as a Pacl-XhoI fragment and is shown in lower case letters, underscored

GGCATACACA CAGACAGCTA GCGGTTGAAG GCGTATCCAG CTGATGATGC TGCTGCATGC GGGGGGAAAA ACATGCGAAC GCGGCACTCT GACGAAATCA TCTAATATTC GCAATGGAAG TGGTTTCCCA TCCAAGGATT TCGATTCGAT TGGGATGAGA GCATTAGAGA ACCTCAAGAG AAACCAACGG ACCIGGITIT TITIACCIGC GACATTAGGA CIGACICICA ATTGTGTACA GAIGTTTTT TTACGACACA AGCGAGGAGC AGACGCTIAT TGCTACCCGG GATCTTTAGA ACTGGAATAT TACTTTCCAG ATATATGACA TACCAGCCGA TGAGTTCGGG TTTTAGTCAC CAGAGTTAAT ATATGTACAC GCTAGAGAGA GTCCATGACG CGTCAATTTG TCATAGTTAT GTTTTATACT AGTCAATTAC AGTCTTAGTG CTTCGTCGAA CCAGCATGIG GGCAGGCGAC ATTCGATGTT GATGAGCTCG CCCGTCAAAA GTTTGGAGTC TTGGATGTTG CATCTAGGAA GTGGTTAATC GCCTGCGCTT TGAGAGCGGT ATTGGTAGTT TCATCCGGAA TTACTATTTA CAATTACAAT CATCTGTTCA AGGGACGAGC ACCTTTCTAG GATCTAGCAA AGCGTCGTCT TCTGTCACAA AAGATTCATG TTAATTACTG ATAGTGAGCA ATTCATCATC CGCGCAAGGA ATGTTTTGTC AAACGGTGTG CTGTGGACAT TCATGAGCAA CAGAAGGTGC AGITICATAT GGCGACGGCA GAITCGITAA ITCGIAAGCA TACAATCCTT TTATCAGAGT AGTCTGACAA CTGCTGCGGT TTGCTGGAGA GGTGGATTGC ATTGAACTAT GAAGACGCTG CIGCITCIIG GAGAGTACTC AAAAGTGTAG AGTAAGAGGA CATACCAGGC GAAAGCTCTT ACATACGCAA CICGGTTCGA CCGTGAAAGA GAGGCTCTTG AACAGGAAAC ATGAAGGAGT CTCCTTGAGG AAATCTTTGT CAATGACGGC AGCGAAGGTT ATAGTCGCGG TGGCCAGAGG AGAGTTACAA TTAGCTGGTC TACAAGGCCT GTGTTAAGGG GCATCACTAT GAGAAGGCTT GTATTTTTAC AACAACAACA AACAACAACA AACAACAGAC AACATTACAA TCGTGACCGC AGGCCCAAGG TGAACTTTTC AAAAGTAATA AACACGCAAA ATGCCGTGCA TTCGCTTGCA CTTGGTCAAT TAGGCGGGAA TTTTGCATCG CGTTCGAGAC ATCATGCGGC ACGAAGGCCA GAAAGACAGT ACAGATACGC AGAAATTCCT GCTACACAGC CTTTCCACTT CTCCGAGAAC TTTTGCATCA AGAGGTTTAC TGTACAAAGG TGTGGCCCAT TGTGCAACAG CGAGAGAATC TCGACATITC TITGGAGACT GGTCCGAATG GGATGTGGAC TACTGATTAG CAAGTTTAGT ACGACAGATT AGTGACTGAG ATGCACTITC AGAATTATCG ACTITATCGA TAGCCTGGTA CGCTAGCTTT ACAGGATCAA ACTGTCCGAG GAAACAACTC ATGCCATTGC TGACCTTTTC CCTCTAATAG GAAGCATTTG ACTTATGACA GGCAGAGTGT TGCTATGCCG TACTTCCCGG GTACCATTAT GIGACCIICC GGAGATAGAG TCTTTAGAGC CAAATGAAAA GGAGACAAGT ACTITICITI TTACAAAAAG ACTCTTGCAA CACATTCGAA AAGGATGACT GCATITCCCI GTGATGTACA GAAGTTGACC GCGAATGTTG AAGGGTTCGA GACCTTGAAA GTGACAGCGA TTTGCTGGAC TACATTTTAT CGGATCATTG CTTCCAAAAG TTCGCGCGAT TGCCGTTCTA CCAATCTTTG GCAGCAATCA TGTCCATACG GTGCAAAACT TAGAATAGAT TATGGTCATC GTTTGGGAAC ACCTACTGAG ACCGTCCATG TAAAGTTCAG AGTGCTTAAC CALTAACGGT TGATCTATAT AGAAACGGAA AGCTGCTATT CCACATCAGC AGTTTAACGC AATTCCAAAT AAATTCCCTA CCAACCTGGA ATCAGCCGAT ACGCGTGTTT ACGCATGGCA AAATGAGGGA TCGTGTTCAC AGAAGATGGA CCCAGATGTG TCAAAGATAC CAGTCCCCAA TGAGGAAAAA TTAAGTATGT GTAAGTTTTC CGAGGGTAAT TTTCGCTGGC CATTTGAACG AAGTTGAAGA CGGGTCCGAT ATACTAAGCT TCAGGGTGCC CTAAGAACGA

FIG. 2 (sheet 2 of 4)

AGATGGTCGG CGGAGCCGCC GTGATCAATC CGATCTCAAA ACCCTTGCAT GGCAAGATCC TGACTTTTAC CCAATCGGAT AAAGAAGCTC TGCTTTCAAG AGGGTATTCA GATGTTCACA CTGTGCATGA AGTGCAAGGC GAGACATACT CTGATGTTTC ACTAGTTAGG TTAACCCCTA CACCGTCTC CATCATTGCA GGAGACAGCC CACATGTTT GGTCGCATTG TCAAGGCACA CCTGTTCGCT CAAGTACTAC ACTGTTGTTA TGGATCCTTT AGTTAGTATC ATTAGAGATC TAGAGAAACT TAGCTCGTAC TTGTTAGATA TGTATAAGGT CGATGCAAGGA ACACAATAGC CATACATCAA TAGAGITICA GGAITCCCGI ACCCCGCCCA TITIGCCAAA TIGGAAGITG ACGAGGIGGA GACACGCAGA ACTACTCICC GITGICCAGC CGAIGICACA CAITAICIGA ACAGGAGAIA IGAGGGCITI GICAIGAGCA CIICITGGGI IAAAAAGICI GITIGGCAG GTGATATITC TGATATGCAG TITTACTATG TGACTGACAT TTCATTGAAT GTCAAAGATT CTATGGTACG AACGGCGGCA GAAATGCCAC TITICACAAG AAAGACACCA GCGCAGAITG AGGAITICIT CGGAGAICIC GACAGICAIG IGCCGAIGGA IGICTIGGAG CIGGATATAT CAAAATACGA CAAATACGA GAITGGGAATICC ACIGIGCAGI AGAATACGAG AICIGGGGAA GAITGGGIII CGAAGACIIC IIGGGAGAAG GTGACGATAG TCTGCTGTAC TITCCAAAGG GTTGTGAGTT TCCGGATGTG CAACACTCCG CGAATCTTAT GTGGAATTTT GAAGCAAAAC TGTTTAAAAA ACAGTATGGA TACTTTTGCG GAAGATGT AATACATCAC GACAGAGGAT GCATTGTGTA TTACGATCCC CTAAAGTTGA TCTCGAAACT TGGTGCTAAA CACATCAAGG ATTGGGAACA CTTGGAGGAG TTCAGAAGGT CTCTTTGTGA TGTTGCTGTT TCGTTGAACA TIGITCITGI GGACGGAGII CCGGGCIGIG GAAAAACCAA AGAAAIICII ICCAGGGIIA ATTGATGAAG GCATCTGGTA TCAAAGAAAG AGCGGGGACG TCACGACGIT CATIGGAAAC ACTGIGATCA TIGCIGCÁIG TITGGCCTCG ATGCTTCCGA IGGAGAAAT AATCAAAGGA GCCTTTIGCG AATGAGTCAT TGTCAGGGGT GAACCTTCTT AAAGGAGTTA AGCTTATTGA TAGTGGATAC GTCTGTTTAG CCGGTTTGGT CGTCACGGGC GTGGTGACAT CTGCTTCGAA GIGCGAAIIC CICAGGGAII AIIGIGGCCA CATATGITIA CGGAGACACA CAGCAGAIIC attgtgcgta ttacacacag ttggacgacg ctgtatggga ggttcataag accgccctc caggttcgtt tgtttataaa agtctggtga AGTATITGIC IGAIAAAGIT CITITIAGAA GITIGITIAI AGAIGGCICI AGITGITAAA GGAAAAGIGA AIATCAAIGA GITTAICGAC SAGTGGAACT TGCCTGACAA TTGCAGAGGA GGTGTGAGCG TGTGTCTGGT GGACAAAGG ATGGAAAGAG CCGACGAGGC CATTCTCGGA CTGACAAAAATGGAGAAGAT CTTACCGTCG ATGTTTACCC CTGTAAAGAG TGTTATGTGT TCCAAAGTTG ATAAATAAT GGTTCATGAG TGGAATATGA TGAGCAGGGT GTCAGTTCAA GAGGTTATTC TCTGCGCAGA AACTCAGAAC GTTGTTGAAA CCCACGCGAG GAAGTATCAT GTGGCGCTTT TGTTTATTCC GACATGGCGA TTAGTACCTG GGAAGCAAGC CGCGGAAATG ATCAGAAGAC GTTGATTCTT TCATGATGAA TTTTGGGAAA AGCACACGCT GCATACTGGT TGTGTTAATT TTCTTGTGGC GATGTCATTG TGCGAAATTG CCAATCTTT TGTTGCAGCG CCAAAGACTG CCCAGGCAAC AGCACCATGA TGAATATTT TGATGCTGTT ACCATGAGGT TITGGAAACA AGGGCATAGA AAGACCACCC TCAAGGATTA TACCGCAGGT ATAAAAACIT CTGAGTCTGT GCGATGATTG GAGAAGAGTA GCTGTTAGCT AGCGCAAAGG TGGATCCTTT AGTTAGTATC ATTAGAGATC AATTACAGAT TGACTCGGTG TTCAAAGGTT CCAAGAGICA IGCAIGGGGI GCATGTCAGT ATTTTGATGA AGATCTAATT CGTTAAAACC ACGGAGAACC CGAAGGACAA GGTTGATGTT ATAAGTGTCT



FIG. 2 (sheet 3 of 4)

TCCGCAAAGG GAAAAATAGT AGGACGCGAT GAAAAACGTC CGTTGATGAG TIAAGGAITT IGGGGGAAIG AGITITAAAA AGAATAAITT AAICGAIGAI GATTCGGAGG CTACTGTCGC CGAATCGGAT TCGTTTTAAA TAGATCTTAC AGTATCACTA CTCCATCTCA GTTCGTGTTC TTGTCATTAA TGTCGGTGTG CAGAAGAAGT CAGCAGCTGC AAAGAAAAGA TTTCAGTTCA AGGTCGTTCC CAATTATGCT ATAACCACCC TAGAAAIGIG AAGAIGICAG CGGGTITCIG ICCGCIIICI CIGGAGIIIG ACGIGAGAGA CGGAGGCCCC AIGGAACTIA GTCGATCAGG CTTGCAAAGT TTCGATCTCG AACCGGAAAA AAGAGTGATG TAAAATTAGG TTTGAGAGAG AAGATTACAA TATAGAAATG GAACAAGAAC TAGTTAATAT GGTCAGTGCC ATGTCCCTAT ICTTACTACA TGGCAAGTTT AGAAATAATA TTCATGGAAG AGTAGTGATC

atg aag get ete gtt att etg ggg ttt ete tte ett tet gte get gte caa gge aag gte ttt gag aga tgt gag ctt gcc aga act ctg aag aaa ctt gga ctg gac ggc tat aag gga gtc agc ctg gca aac tgg ttg tgt ttg acc aaa tgg gaa agc agt tat aac aca aaa gct aca aac tac aat cct agc agt gaa agc act gat tat ggg ata ttt cag atc aac agc aaa tgg tgg tgt aat gat ggc aaa acc cct aat gca gtt gac ggc tgt cat gta tcc tgc agc gaa tta atg gaa aat gac atc gct aaa gct gta gcg tgt gca aag cat att gtc agt gag caa ggc att aca gcc CGCGGGTCAA ATGTATATGG TTCATATACA TCCGCAGGCA CGTAATAAAG CGAGGGGTTC TTTAATCAAT GTGTACAAAT TAGTATGACA CTICGATACT TGCGACTGTA TGCTAGTGGA TITICCCICC GGGTGGCTGA GTGTATACTG CGTCCACTTA AGGTTCGAAT TCCACACAAC ATACGAGCCG GAAGCATAAA GCCCGCTITC CAGICGGGAA ACCIGICGIG GGGGAGAGGC GGTTTGCGTA TTGGGCGCTC TTCCGCTTCC TCGCTCACTG ACTCGCTGCG GCAGGCATGC tgg gtg gca tgg aaa agt cat tgt cga gac cat gac gtc agc agt tac gtt gag ggt tgc acc ctg taa CTCGAGGGGT AGTCAAGATG CATAATAAAT AACGGATTGT GTCCGTAATC ACACGTGGTG CGTACGATAA CGCATAGTGT TTTT TAGTGGTAAG AAAGGTTTGA AAGTTGAGGA AATTGAGGAT AATGTAAGTG ATGACGAGTC TATCGCGTCA TCGAGTACGT TITGITIACI TAAGIICCGC TIAIGCAGAI CCIGIGCAGC IGAICAAICI GCATTGGGTA ACCAGTTTCA AACGCAACAA GCTAGGACAA CAGTCCAACA GCAATTTGCG GATGCCTGGA AACCTGTGCC TATAGATATA ATTCGACGCT TGATCCGTTG ATCACGGCGT TATTAAATAG TGATAATCAA CCCGCACCGA ATACTACTGA AATCGTTAAC GCGACTCAGA GGGTAGACGA TAAITIGGCT AAIGAACIGG TICGIGGAAC IGGCAIGTIC AAICAAGCAA GCITIGAGAC TTAAAATTCA GTICGICCAC TIAAATATAA CGAITGICAI AICTGGAICC AACAGITAAA CCAIGIGAIG CAAAATCAGC AGTGGTTGTT TATGGCGTAA AACAACGGAG CGTGAGGACG AAACCTGGCT CACTGAAGAC CTATTGTTGT GAGATTTCCT AAAATAAAGT TGGCTGATAC AGTTAAACCA TGTGATGGTG TATACTGTGG CTGATGAGTC CTAACTCACA TTAATTGCGT TGCGCTCACT TCCTGTGTGA AATTGTTATC CGCTCACAAT CGGCCCAGGT ACCCGGATGT GITITCCGGG TGAAGACTTA AAATTCAGGG ACTTAAATCG AAGGGTTGTG TCTTGGATCG ATGCCTTATA CAATCAACTC TCCGAGCCAA TTTCTATGTG GGCTACTTAG GAAAAGTCGC TGGATCCAAC CatAGCTGTT AATGAGTGAG CCAGCTGCAT TAATGAATCG GCCAACGCGC AGAAATAGAA TAATAGAGGT GCTATAAGGG CTTCAATCAA CTTGTCTGGA CCACAACTCC TGGTATGGCG TAAAACAACG GTGAGATTTC CTGCATCGGA TACCAAAATC AGCAGTGGTT TTGTCATATC CCTCCCCTAA CCGCGGGTAG GTGTAAAGCC TGGGGTGCCT AAGCTTGGCG TAATcatggt AAAATAACGA

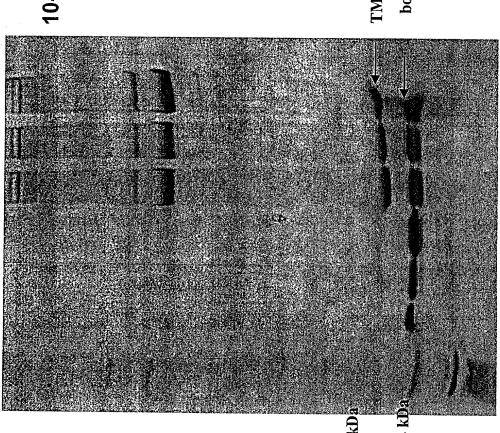
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FIGURE 2 (sheet 4 of 4)

CICGGICGII	CTCGGTCGTT CGGCTGCGGC	: GAGCGGTATC	AGCTCACTCA	AAGGCGGTAA	TACCCCTTATO	A D T A C A C A C		# (# K () (# ()
CATGTGAGCA	CATGTGAGCA AAAGGCCAGC	: AAAAGGCCAG	GAACCGTAAA	AAGGCCGCGT	TGCTGGGTT	CONTROLL OF THE		
TCACAAAAT	CGACGCTCAA	GTCAGAGGTG		ACAGGACTAT	AAAGATACCA		つつつつつののでしてして	というなもつなりょう
CICICCIGIL	CICICCIGIT CCGACCCIGC	: CGCTTACCGG	ATACCIGICC	GCCTTTCTCC	CTTCGGGAAG	DD01110000	こうりではののようい	りつりょりひょううう
GTATCTCAGT	TCGGTGTAGG	TCGTTCGCTC	CAAGCTGGGC	TGTGTGCACG	AACCCCCCGT	てはむしししきなした	10000000000	りないりいいしいという
CTATCGTCTT	CTATCGTCTT GAGTCCAACC	CGGTAAGACA	CGACTTATCG	CCACTGGCAG	CAGCCACTGG	TAACAGGATT	AGCAGAGCGA	14100001AA
CGGTGCTACA	GAGTTCTTGA	AGTGGTGGCC	TAACTACGGC	TACACTAGAA	GGACAGTATT	TGGTATCTGC	GCTCTCTCA	0041014100 041104000A
CTTCGGAAAA	CTTCGGAAAA AGAGTTGGTA	GCTCTTGATC	CGGCAAACAA	ACCACCGCTG	GTAGCGGTGG	TTTTTTT	TGCAAGCAGC	AGATTACGC
CAGAAAAAA	CAGAAAAAA GGATCTCAAG		GATCTTTTCT	ACGGGGTCTG	ACGCTCAGTG	GAACGAAAAC	TCACGTTAAG	GGATTTTGGT
CATGAGATTA	TCAAAAAGGA		GATCCTTTTA	AATTAAAAAT	GAAGTTTAA	ATCAATCTAA	AGTATATATG	AGTAAACTTG
GTCTGACAGT	TACCAATGCT		GGCACCTATC	TCAGCGATCT	GTCTATTTCG	TTCATCCATA	GTTGCCTGAC	
GTAGATAACT	GTAGATAACT ACGATACGGG	AGGGCTTACC	ATCTGGCCCC	AGTGCTGCAA	TGATACCGCG	AGACCCACGC	TCACCCCCTC	
AGCAATAAAC	AGCAATAAAC CAGCCAGCCG	GAAGGGCCGA	GCGCAGAAGT	GGTCCTGCAA	CTTTATCCGC	CTCCATCCAG	TCTATTAATT	
AGCTAGAGTA	AGTAGTTCGC	CAGTTAATAG	TTTGCGCAAC	GTTGTTGCCA	TTGCTACAGG	CATCGIGGIG	TCACGCTCGT	
GGCTTCATTC	GGCTTCATTC AGCTCCGGTT		AAGGCGAGTT	ACATGATCCC	CCATGTTGTG	CAAAAAAGCG	GTTAGCTCCT	
GATCGTTGTC	GATCGTTGTC AGAAGTAAGT	TGGCCGCAGT	GITAICACIC	ATGGTTATGG	CAGCACTGCA	TAATTCTCTT	ACTGTCATGC	
ATGCTTTTCT	GTGACTGGTG	AGTACTCAAC	CAAGTCATTC	TGAGAATAGT	GTATGCGGCG	ACCGAGTTGC		
GGATAATACC	GGATAATACC GCGCCACATA	GCAGAACTTT	AAAAGTGCTC	ATCATTGGAA	AACGTTCTTC	GGGGGGAAAA	00000010101	
GTTGAGATCC	GITGAGAICC AGTICGAIGI	AACCCACICG	TGCACCCAAC	TGATCTTCAG	CATCTTTAC	TTTCACCAGC		
AGGAAGGCAA	AGGAAGGCAA AATGCCGCAA	AAAAGGGAAT	AAGGGCGACA	CGGAAATGTT	GAATACTCAT	ACTCTTCCTT		ATTGA AGCAT
TTATCAGGGT	TTATCAGGGT TATTGTCTCA	TGAGCGGATA	CATATTTGAA	TGTATTTAGA	AAAATAAACA	AATAGGGGTT	CCGCGCACAT	TTCCCCGAAA
AGTGCCACCT	AGTGCCACCT GACGTCTAAG	AAACCATTAT	TATCATGACA	TTAACCTATA	AAAATAGGCG	TATCACGAGG	CCCTTTCGTC	
CGGTGATGAC	CGGTGATGAC GGTGAAAACC	TCTGACACAT	GCAGCTCCCG	GAGACGGTCA	CAGCTIGICT	GTAAGCGGAT		GACAAGCCCG
TCAGGGCGCG	TCAGCGGGTG	TIGGCGGGIG	TCGGGGCTGG	CTTAACTATG	CGGCATCAGA	GCAGATTGTA		ACCATATGCG
GTGTGAaata ccgcacagat g	ccgcacagat	gcGTAAGGAG	AAAATACCGC	ATCAGGCGCA	TTCGCCATTC			AGGGGGATCG
GIGCGGGCCI	CTTCGCTATT	ACGCCAGCTG	GCGAAAGGGG	GATGTGCTGC				THUCCAGECA
CGACGTTGTA	AAACGACGGC	CAGTGAATTC	AAGCTTAATA	CGACTCACTA				

Fig. 3.

and a



10-20% Tris-Glycine SDS PAGE gel

Marker
(+) BoLys - 1μg
(+) BoLys - 2 μ g
(+) BoLys - 5 μ g
(+) BoLys - 5 μ g
Nb-1 GJ - 2 μ I
Nb-2 GJ - 2 μ I
Nb-3 GJ - 2 μ I

TMV coat protein

bolys

Fig. 4

14% Tris-Glycine

SDS-PAGE gel

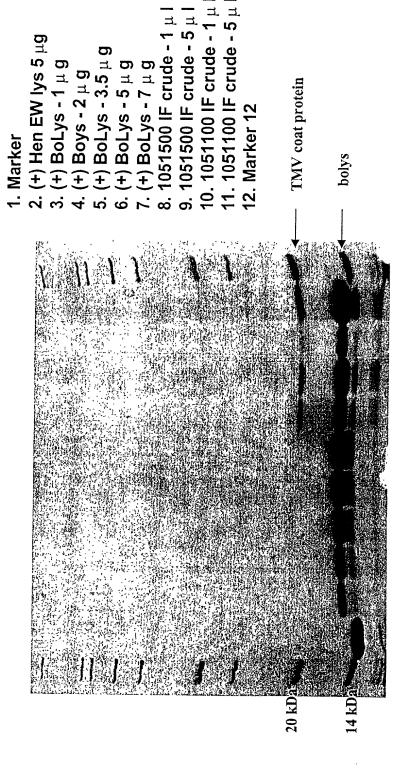
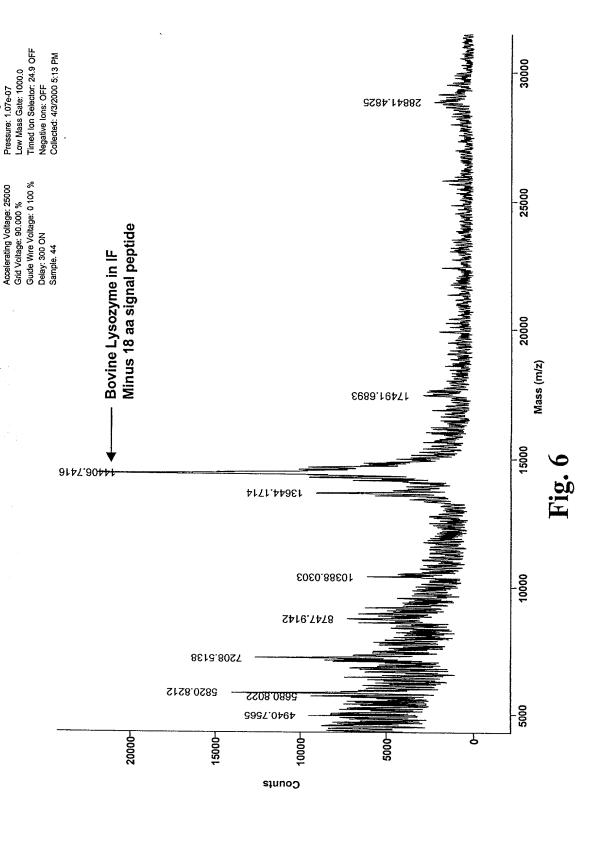


Fig. 5

Laser : 2350 Scans Averaged: 62

Method: HCD-60K Mode: Linear



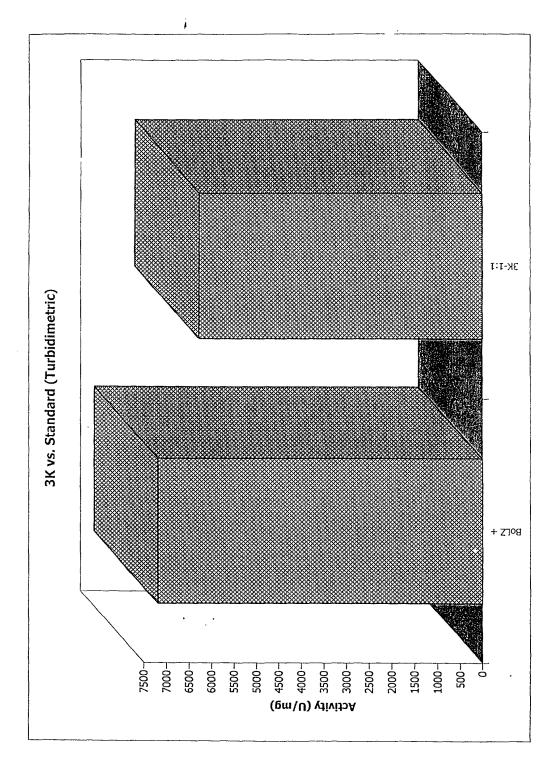


Fig.

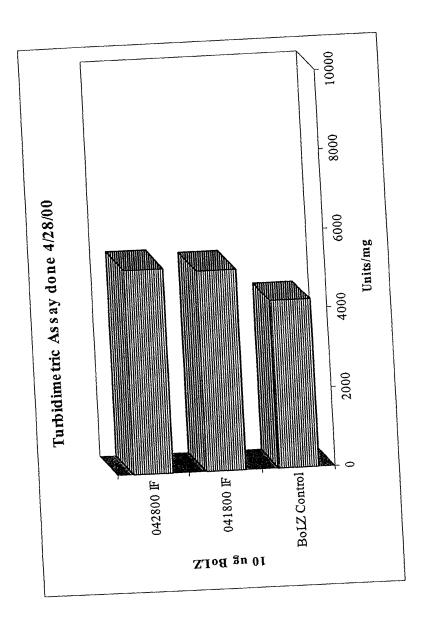


Fig. 8

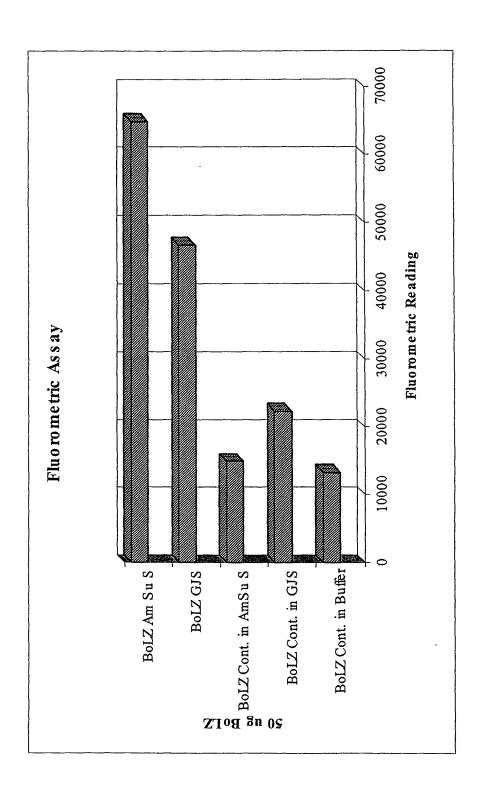


Fig. 9

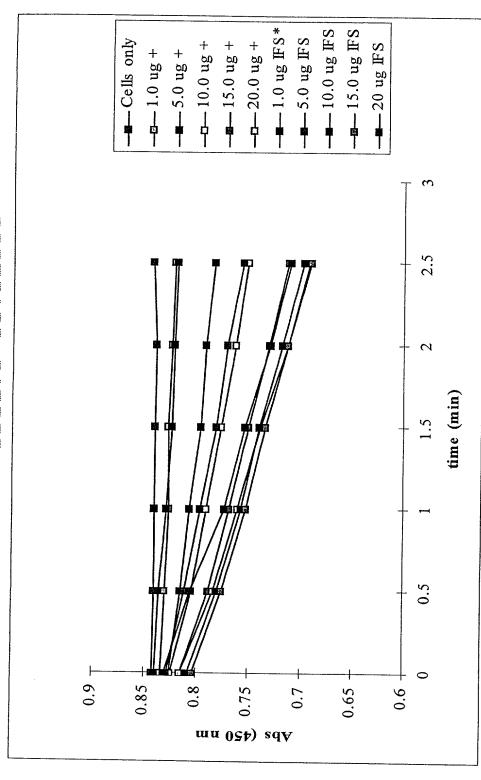


Fig. 10

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